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(54) Title: CYTOPLASMIC DYNEIN HEAVY CHAIN 1 GENES, EXPRESSION PRODUCTS, NON-HUMAN ANIMAL MODEL: USES IN HUMAN NEUROLOGICAL DISEASES

(57) Abstract: A non-human animal model is provided, particularly a mouse model for movement hyperactivity, excitotoxicity disorders (e.g. myoclonic cramping) and neurodegeneration, in which modified cytoplasmic dynein heavy chain 1 is expressed. Modified human and mouse cytoplasmic dynein heavy chain 1 proteins and nucleic acids are also provided, including the corresponding recombinant proteins. The invention further provides uses for the non-human animal model and the modified cytoplasmic dynein heavy chain 1 proteins and nucleic acids, in particular for the diagnosis and treatment of medical conditions associated with over-expression of cytoplasmic dynein heavy chain 1.

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